

Report No.: 1

Test Time: 11.12.2019 19:32

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FG 180 4x18LED 0.3A 36W 5000K opal

Luminous Length (mm): 1200

Luminous Width (mm): 180

Luminous Height (mm): 35

Voltage: 221.4 V

Current: 0.168 A

Power: 36.15 W

Power Factor: 0.969

Photometric Results

CIE Class: Direct

Measurement Flux: 3548.9 lm

Downward Ratio: 99%

Total Rated Lamp Lumens: 3548.9 lm

Efficiency: 100%

Upward Ratio: 1%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 164.5, 163.7, 164.3, 164.1

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 112.2, 111.5, 111.9, 111.9

Luminaire Efficacy Rating (LER): 98.22

Central Intensity: 1228.34 cd

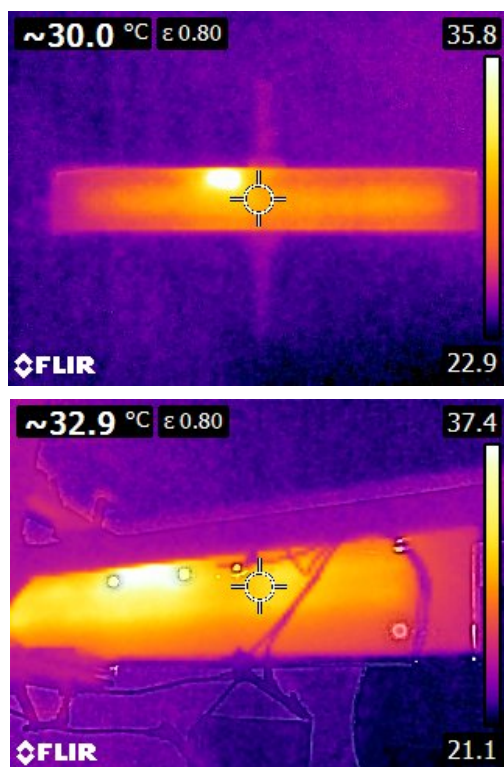
Max. Intensity: 1231.09 cd

Pos of Max. Intensity: H157.5 V0

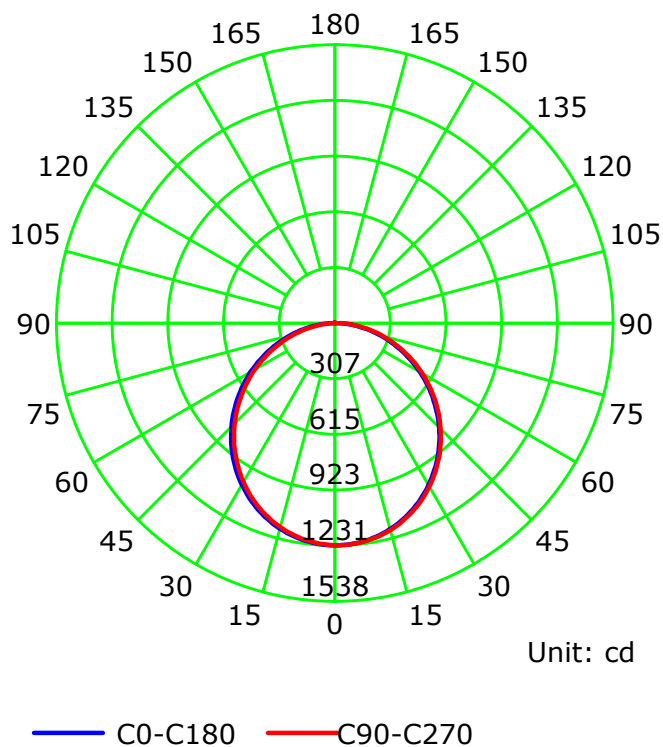
S/MH(C0/C180): 1.25

S/MH(C90/C270): 1.25

Termogramma



Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

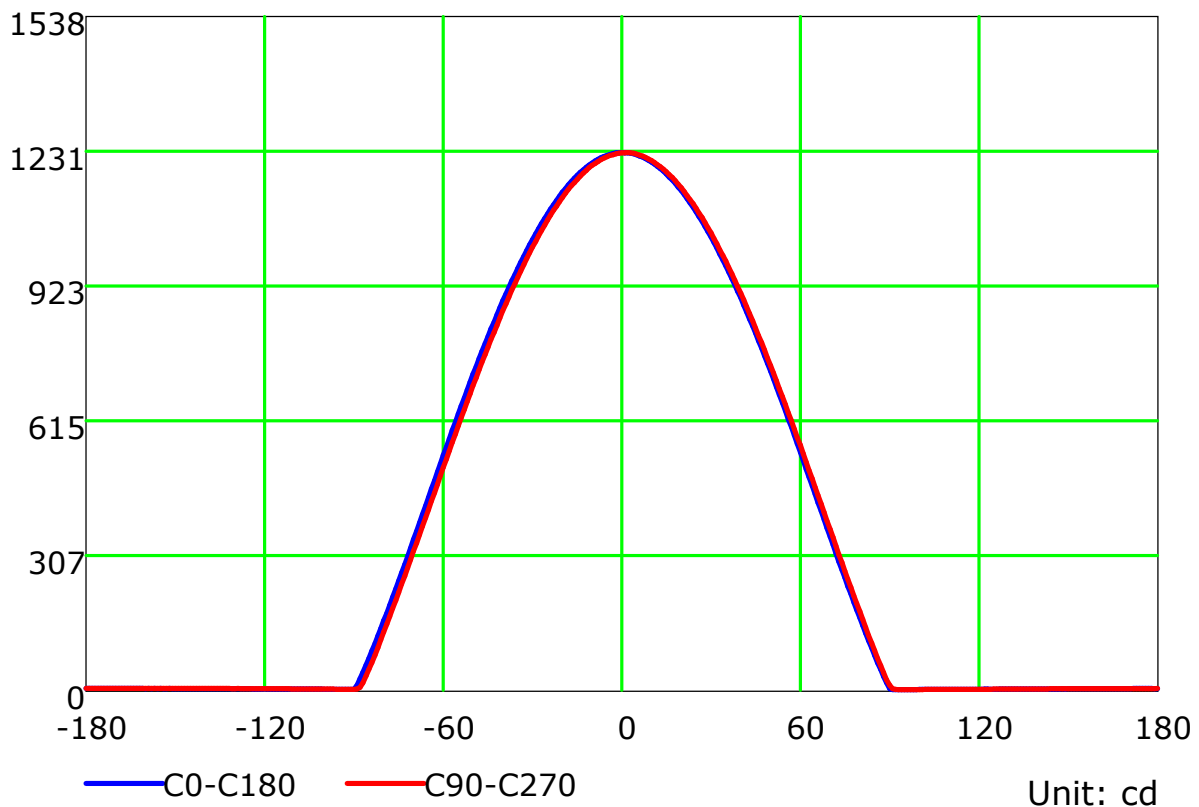
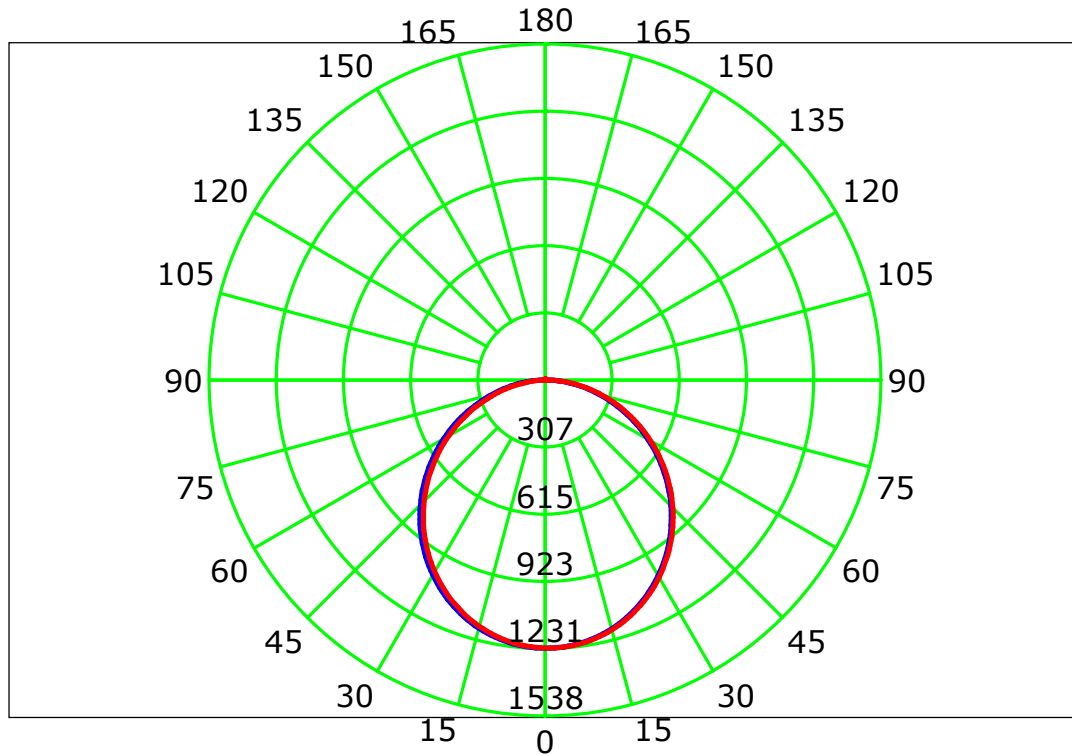
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

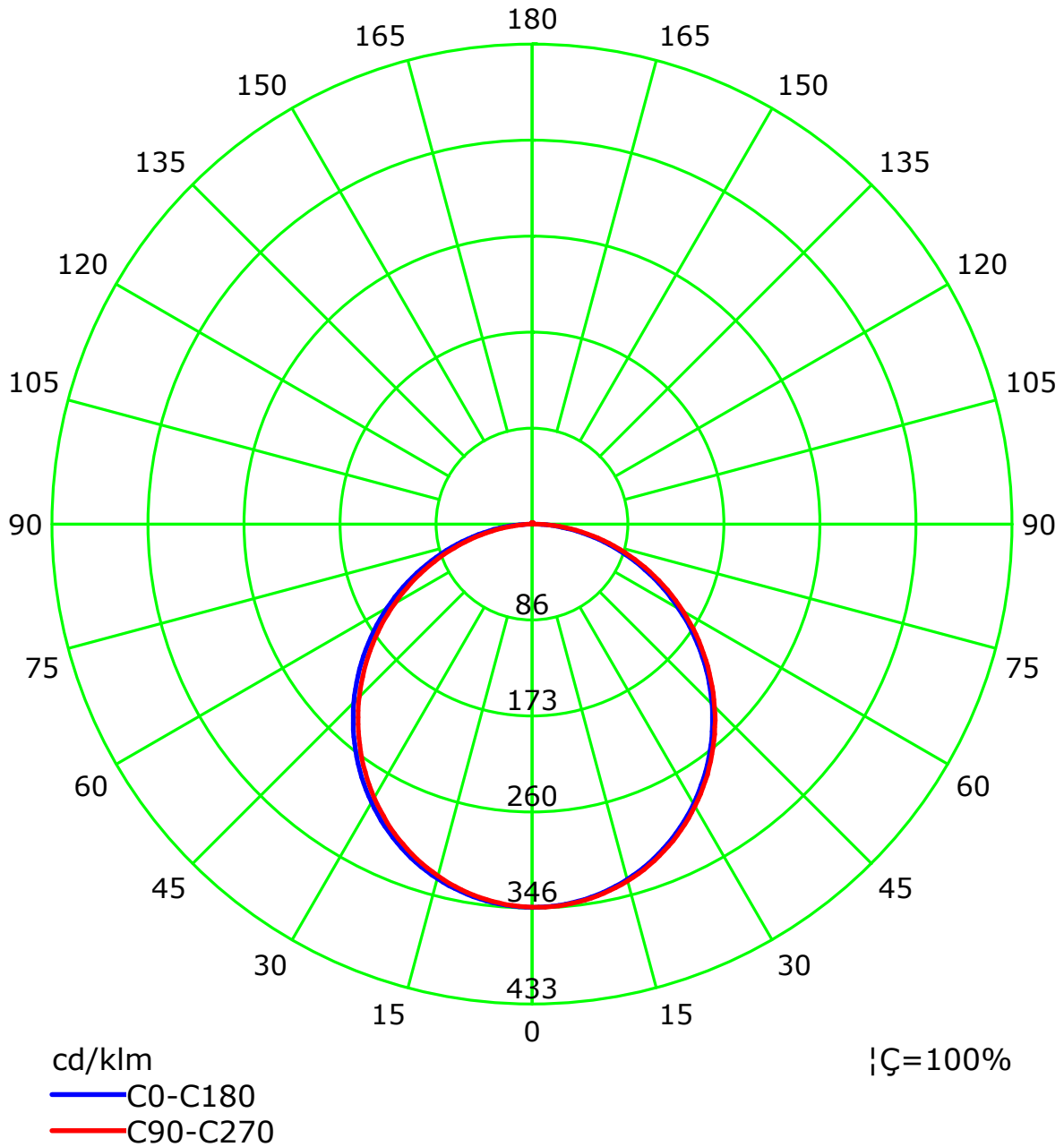
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

Luminous Intensity Distribution Curve(cd/klm)



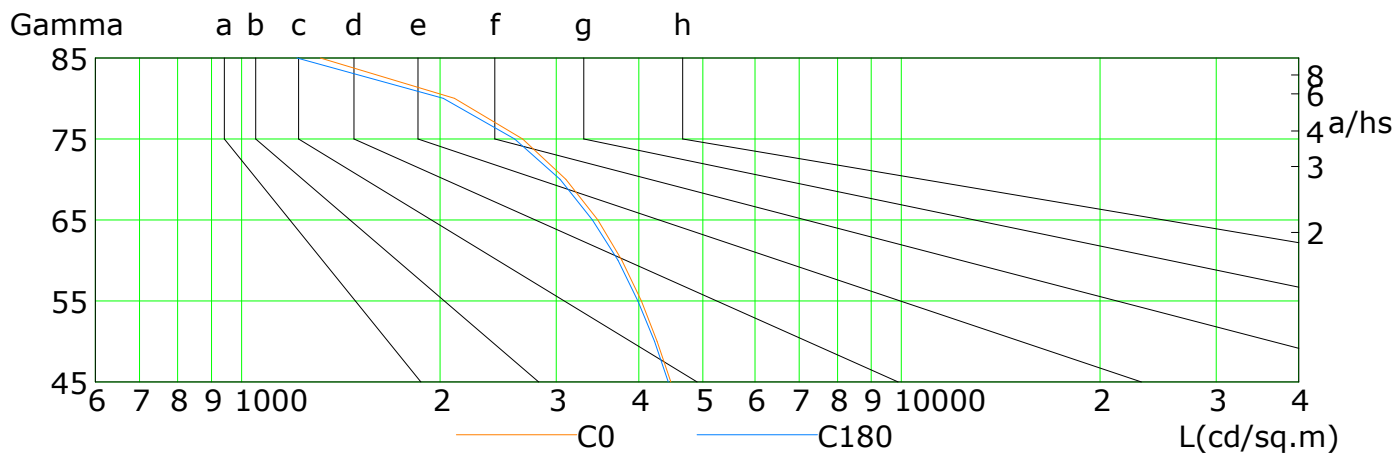
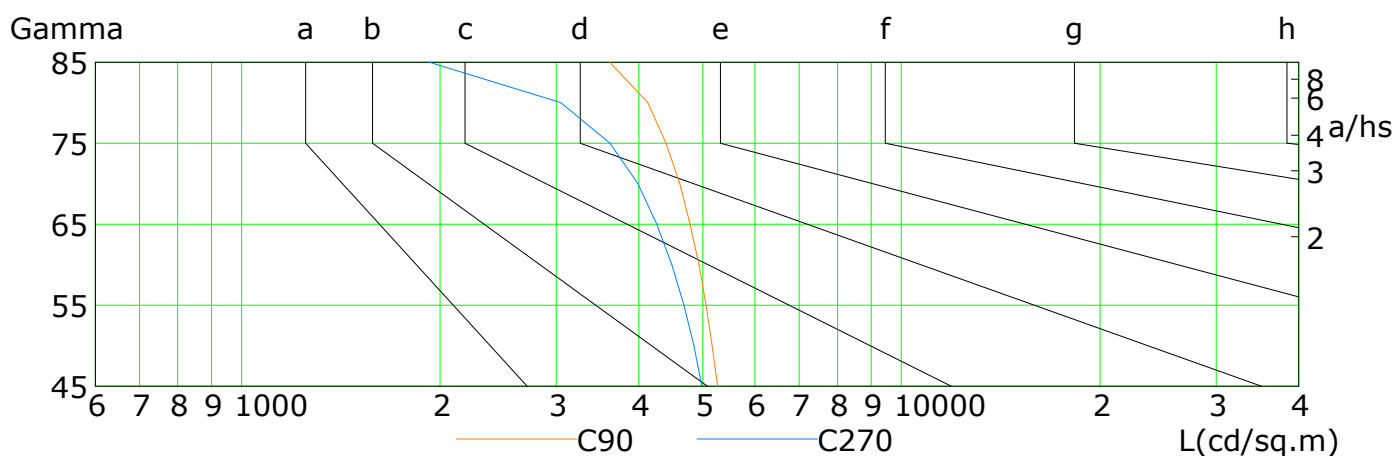
C Plane (°):0.0-360.0: 22.5
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

Gamma Plane (°):0.0-180.0:1.0
Test Device: LSG-1800B
Distance: 12.677 m
Humidity:
Inspector:

Lum Limit Curve

Dazzle	Quality	Illuminance (lx)							
1.15	A	2000	1000	500	<=300				
1.50	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.20	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300

a b c d e f g h

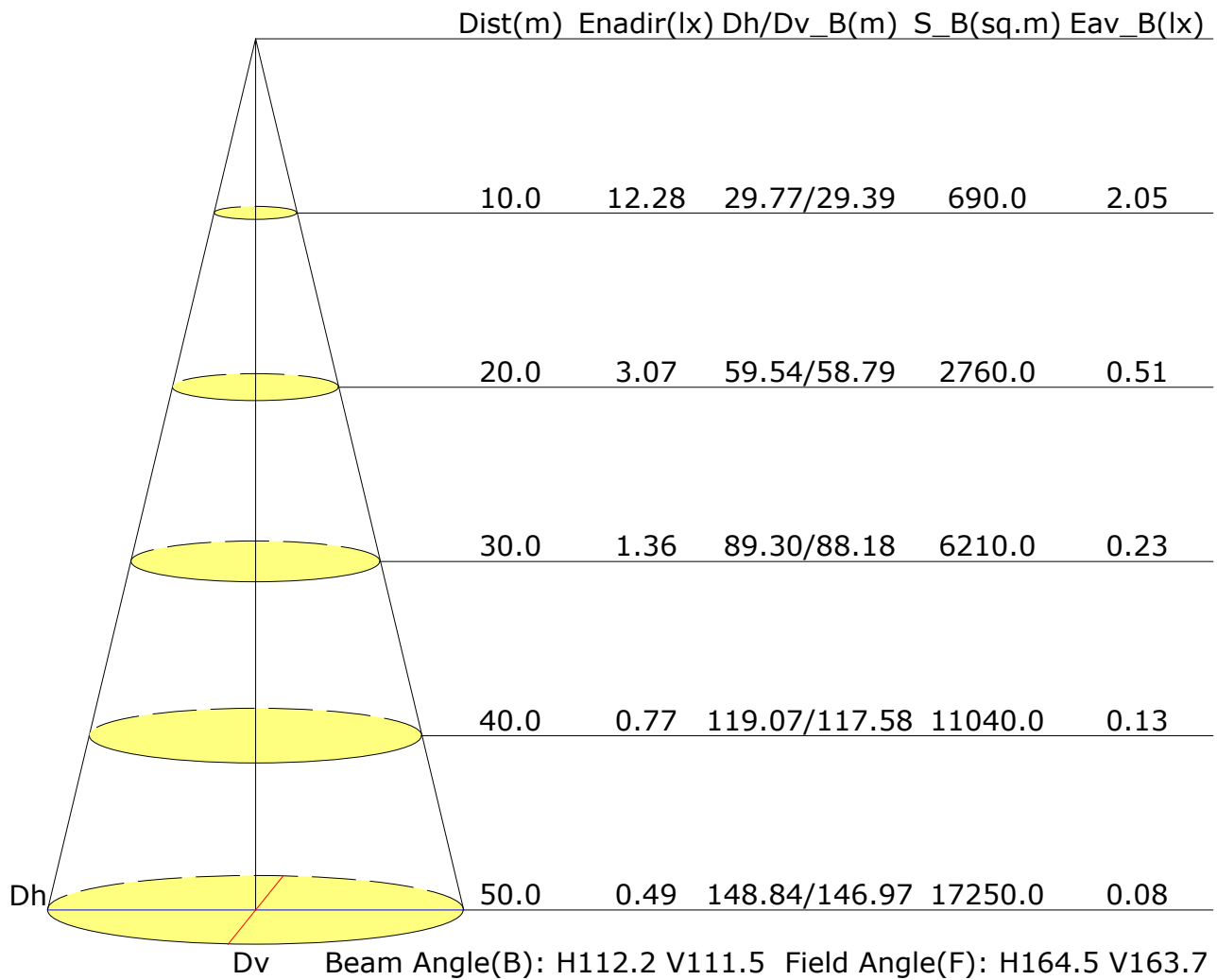


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	4474	4264	4038	3769	3466	3101	2668	2103	1317
C90	5264	5164	5059	4936	4785	4617	4398	4125	3612
C180	4430	4224	3989	3722	3403	3038	2592	2021	1213
C270	4986	4848	4682	4486	4258	3985	3619	3046	1927

C Plane (°):0.0-360.0: 22.5
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

Gamma Plane (°):0.0-180.0:1.0
 Test Device: LSG-1800B
 Distance: 12.677 m
 Humidity:
 Inspector:

Illuminance at a Distance



UGR Table

Reflectance:										
Ceiling (cavity)	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
X=2H Y=2H	17.4	18.8	17.7	19.1	19.3	17.8	19.2	18.1	19.4	19.7
3H	18.9	20.1	19.2	20.4	20.7	19.4	20.7	19.7	20.9	21.2
4H	19.4	20.6	19.8	20.9	21.2	20.0	21.2	20.4	21.5	21.8
6H	19.8	20.9	20.2	21.3	21.6	20.5	21.7	20.9	22.0	22.3
8H	19.9	21.0	20.3	21.4	21.7	20.7	21.8	21.1	22.1	22.5
12H	20.0	21.0	20.4	21.4	21.7	20.8	21.9	21.2	22.2	22.6
X=4H Y=2H	18.1	19.3	18.4	19.6	19.9	18.4	19.6	18.7	19.9	20.2
3H	19.7	20.7	20.1	21.1	21.4	20.1	21.2	20.5	21.5	21.9
4H	20.4	21.3	20.8	21.7	22.1	20.9	21.8	21.3	22.2	22.6
6H	20.9	21.7	21.3	22.1	22.5	21.5	22.4	22.0	22.8	23.2
8H	21.1	21.8	21.5	22.2	22.7	21.8	22.5	22.2	22.9	23.4
12H	21.2	21.9	21.6	22.3	22.7	21.9	22.6	22.4	23.0	23.5
X=8H Y=4H	20.7	21.4	21.1	21.9	22.3	21.2	21.9	21.6	22.3	22.8
6H	21.3	21.9	21.8	22.4	22.9	21.9	22.5	22.4	23.0	23.5
8H	21.6	22.1	22.1	22.6	23.1	22.2	22.7	22.7	23.2	23.7
12H	21.7	22.2	22.2	22.7	23.2	22.4	22.9	22.9	23.4	23.9
X=12H Y=4H	20.7	21.4	21.2	21.8	22.3	21.2	21.9	21.6	22.3	22.7
6H	21.4	21.9	21.9	22.4	22.9	22.0	22.5	22.4	23.0	23.5
8H	21.7	22.1	22.2	22.6	23.1	22.3	22.8	22.8	23.2	23.8
Variations with the observer position at spacings:										
S=1.0H	+0.2/-0.2					+0.2/-0.2				
S=1.5H	+0.3/-0.5					+0.4/-0.5				
S=2.0H	+0.5/-0.9					+0.5/-0.9				

Calculate in accordance with CIE Pub.117. The table is revised with 3549lm ($8\log(F/F_0) = 4.4$).

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 Test Device: LSG-1800B
 Distance: 12.677 m
 Humidity:
 Inspector:

Utilisation Factor Table(Floor cavity)

Utilisation Factors UF(F)			SHR NOM = 1.25									
Room Reflectance			Room Index(RI)									
Ceiling	Wall	Floor	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00	
0.70	0.50	0.20	0.56	0.66	0.74	0.79	0.86	0.91	0.95	1.00	1.03	
	0.30		0.48	0.58	0.66	0.72	0.80	0.86	0.90	0.95	0.99	
	0.20		0.42	0.52	0.60	0.66	0.75	0.81	0.85	0.92	0.96	
0.50	0.50	0.20	0.54	0.64	0.71	0.76	0.83	0.88	0.91	0.96	0.98	
	0.30		0.47	0.57	0.64	0.70	0.78	0.83	0.87	0.92	0.95	
	0.20		0.42	0.52	0.59	0.65	0.73	0.79	0.83	0.89	0.93	
0.30	0.50	0.20	0.53	0.62	0.69	0.73	0.80	0.84	0.88	0.92	0.94	
	0.30		0.46	0.56	0.63	0.68	0.75	0.81	0.84	0.89	0.92	
	0.20		0.41	0.51	0.58	0.64	0.72	0.77	0.81	0.86	0.90	
0.00	0.00	0.00	0.39	0.49	0.56	0.61	0.68	0.73	0.77	0.82	0.85	
Rating:36W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												

Utilisation Factor Table(Wall)

Utilisation Factors UF(W)			SHR NOM = 1.25									
Room Reflectance			Room Index(RI)									
Ceiling	Wall	Floor	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00	
0.70	0.50	0.20	1.01	0.84	0.71	0.62	0.50	0.42	0.36	0.28	0.23	
	0.30		0.84	0.72	0.62	0.55	0.45	0.38	0.33	0.26	0.22	
	0.20		0.72	0.62	0.55	0.49	0.41	0.35	0.31	0.25	0.21	
0.50	0.50	0.20	0.97	0.80	0.68	0.60	0.48	0.43	0.34	0.26	0.22	
	0.30		0.82	0.70	0.60	0.53	0.44	0.37	0.32	0.25	0.21	
	0.20		0.71	0.62	0.54	0.48	0.40	0.34	0.30	0.24	0.20	
0.30	0.50	0.20	0.94	0.77	0.66	0.57	0.46	0.38	0.32	0.25	0.21	
	0.30		0.81	0.68	0.59	0.52	0.42	0.35	0.31	0.24	0.20	
	0.20		0.71	0.61	0.53	0.47	0.39	0.33	0.29	0.23	0.19	
0.00	0.00	0.00	0.60	0.51	0.44	0.39	0.32	0.27	0.23	0.18	0.15	
Rating:36W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												

Utilisation Factor Table(Ceiling cavity)

Utilisation Factors UF(C)			SHR NOM = 1.25									
Room Reflectance			Room Index(RI)									
Ceiling	Wall	Floor	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00	
0.70	0.50	0.20	0.17	0.18	0.19	0.20	0.21	0.21	0.22	0.22	0.22	
	0.30		0.10	0.12	0.13	0.14	0.16	0.17	0.18	0.19	0.20	
	0.20		0.05	0.07	0.08	0.09	0.12	0.13	0.14	0.16	0.17	
0.50	0.50	0.20	0.16	0.18	0.18	0.19	0.20	0.20	0.21	0.21	0.21	
	0.30		0.10	0.11	0.13	0.14	0.15	0.16	0.17	0.18	0.19	
	0.20		0.05	0.07	0.08	0.09	0.11	0.13	0.14	0.16	0.17	
0.30	0.50	0.20	0.16	0.17	0.18	0.18	0.19	0.20	0.20	0.20	0.21	
	0.30		0.10	0.11	0.12	0.13	0.15	0.16	0.17	0.18	0.18	
	0.20		0.05	0.07	0.08	0.09	0.11	0.13	0.14	0.15	0.16	
0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
Rating:36W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												